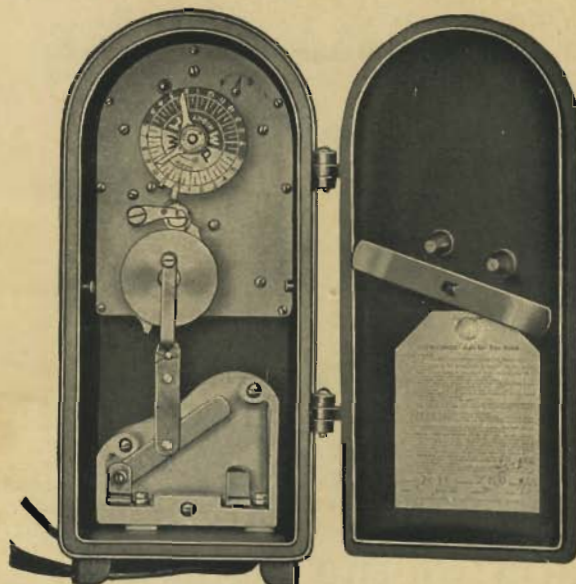


CAMPBELL MANUFACTURING CO., LYNN, MASS.

## Campbell Type C, Eight-Day Time Switch



Positive and Dependable

### Specifications

**Switch.**—Since the first electric light and motor service the simplest, most positive and absolutely dependable means of making and breaking the circuits has proven to be the “Knife Switch,” which is the type employed in the Campbell Time Switch. Each blade is assembled as a separate unit on a porcelain barrier base. This method makes it possible to furnish double or triple pole switches occupying but a small space and suitable for all standard commercial voltages.

The switch is connected by a lever to the flywheel of clock, which opens and closes it with a quick, positive movement, which never leaves the blades close enough to create an arc.

**Outer Case.**—Is of cast iron constructed in a manner similar to fire-alarm and police call boxes, suitable for installation out-of-doors. Finish as regularly furnished is black enamel thoroughly baked. The door is provided with handle, which draws it tight to a rubber weather-proofing gasket.

**Heat Coils.**—Connections are provided in each switch for attachment of heat coils when necessary.

**Wire Connections.**—Wires are brought out through bottom of the iron case through porcelain bushings, which extend through the iron and are a part of the porcelain switch bases.

**Clock.**—See description under Type S. E. Switch, page 2. The clock is standard for both switches. Also note list of separate parts on page 4.

### Suggestions for Use of Campbell Time Switches, Type “C”

Automatic control of lights in Store Windows, Signs, Stairways, Alleyways, Clocks, Entrances, Whiteways, Poultry-houses.

**Melting Pots**—Electrically heated, for lead or glue, may be turned on automatically early in the morning and be ready for use at starting time.

#### TYPE “C”—EIGHT DAY (ON and OFF Daily)

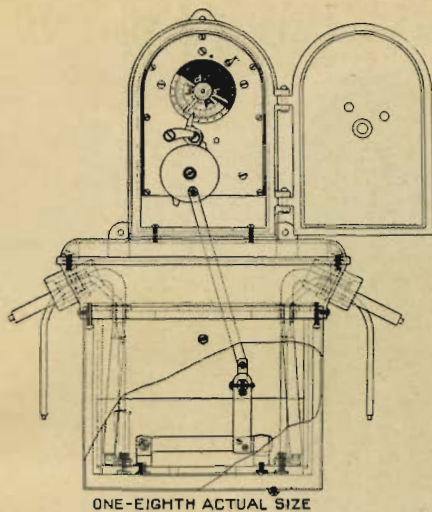
Height 15"—Width 7"—Depth 5"—Shipping weight 38 pounds

For the Ordinary Installation, such as Store Windows, Signs, Entrances, Multiple Street Lights, Storage Battery Recharging, etc. For more than 60 amp. use any standard make of magnet switch in connection with Type C No. 101.

1101	30 amp., Double Pole.....	250 V.....	\$60.00
1102	60 amp., Double Pole.....	250 V.....	65.00
1108	30 amp., Triple Pole.....	250 V.....	62.00
1109	60 amp., Triple Pole.....	250 V.....	66.00



# CAMPBELL MANUFACTURING CO., LYNN, MASS.



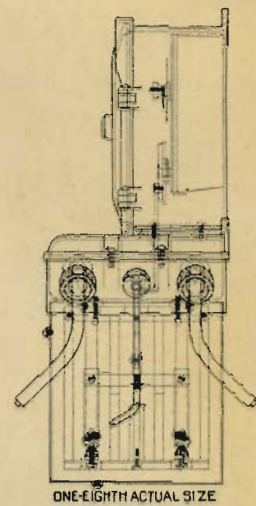
## For Series Street Lights

30 Amps., 2500 V. to 6600 V.

Heat Coil for Low  
Temperature

Only One Spring To Wind

Four Operations Daily  
if Desired



Clock is not of delicate watch-like construction. It is a special heavy, ruggedly built clock movement for hard work.

## Description of the Campbell Type SE Time Switch

### *Specifications*

**Switch.** This switch is constructed for use on high voltage circuits especially in connection with street lighting equipment and is a development of many years' experience of specialists in time switch construction. It has undergone a most rigid and satisfactory test by the largest electric companies. It will handle up to 30 amperes at any voltage up to 6600. The switch is mounted in a liberal sized container, and is of the knife break type, well covered with oil, and the double pole switch is provided with double barriers between the terminals.

Switches can be furnished for four operations daily if required, i. e., on and off in the morning and on and off at night. There is ample power in the spring to carry it more than the rated time of one week.

**Connections.** The connections are brought from the switch in such a manner that there is no crossing of the wires and they are brought directly to the insulating bushings which are placed so that they do not obstruct or interfere with the accessibility of the clock movement. The clock and switch actuating mechanism are operated by one spring. This is an advantage over devices that require more than one spring to be wound, as there is quite often an error made, due to the failure to wind both springs.

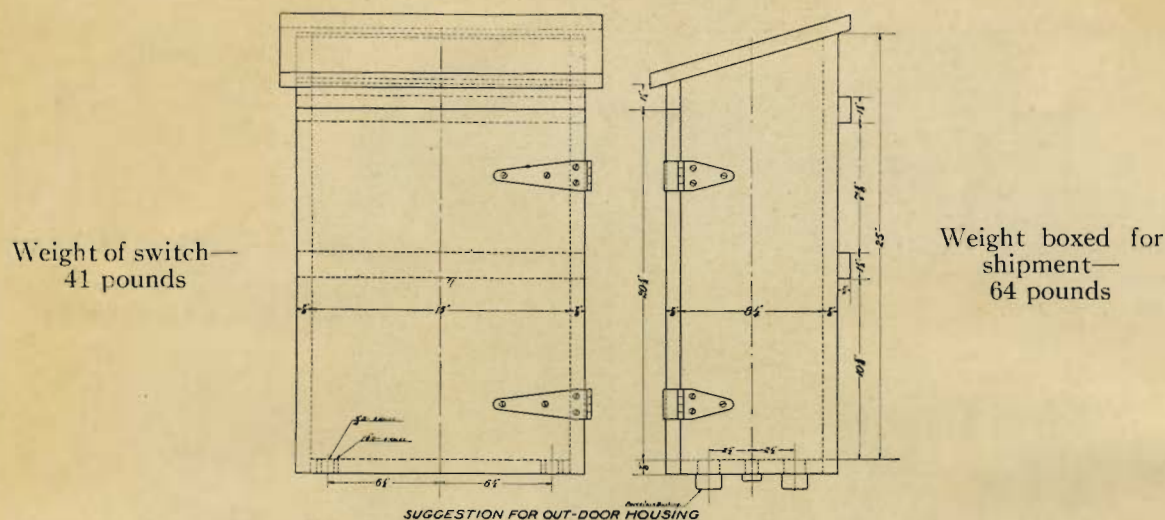
**Heater Coil.** There is also provided a heater coil that can be used when the switches are installed in cold climates. This keeps the oil from solidifying and allows for circulation of the oil through the openings in the switch base.

**Clock.** This clock is not of the delicate watch type but all parts are of very rugged construction; solid pinions, heavy substantial gears are used and the escapement is of the American lever type. The clock is contained in a separate case which is mounted in the main housing. This eliminates the possibility of dust getting in, either during shipment or while the clock is being wound.

**Price \$110.00**



**Installation.** Some users prefer in mounting the time switch to have an auxiliary housing consisting of a wood box. Plan with dimensions for construction of such a housing if it is desired, will be found below. It is not absolutely necessary except in extremely cold places.



Shipping dimensions — 11" x 16½" x 24".

#### FOUR OPERATIONS DAILY

At an additional cost of 10%, any of the eight day switches can be made to operate 4 times daily.

#### HEATER COILS

Zero temperatures require the installation of Heater Coils on time switches to prevent the oil in clock from gumming. In ordering, specify Type and catalogue number of switch on which they are to be installed.

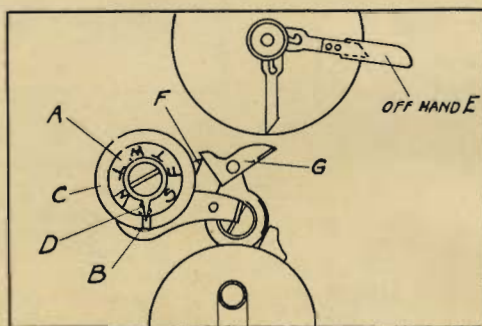
501 3000 ohm Heater Coil (110-250 v.) .....\$4.50

#### SUNDAY CUT-OUT ATTACHMENT

Any Campbell Eight-Day Time Switch may be equipped with Sunday cut-out attachment, which automatically prevents switch from operating on Sunday or any week day, for which attachment may be set.

503 Sunday Cut-Out Attachment .....\$10.00

**Heavy Loads.**—Loads greater than sixty ampere may be controlled best by use of any of the standard magnet switches, which in turn may be automatically controlled by the Type "C" Catalogue Number 101 time switch.



#### For Campbell Eight-Day Switches

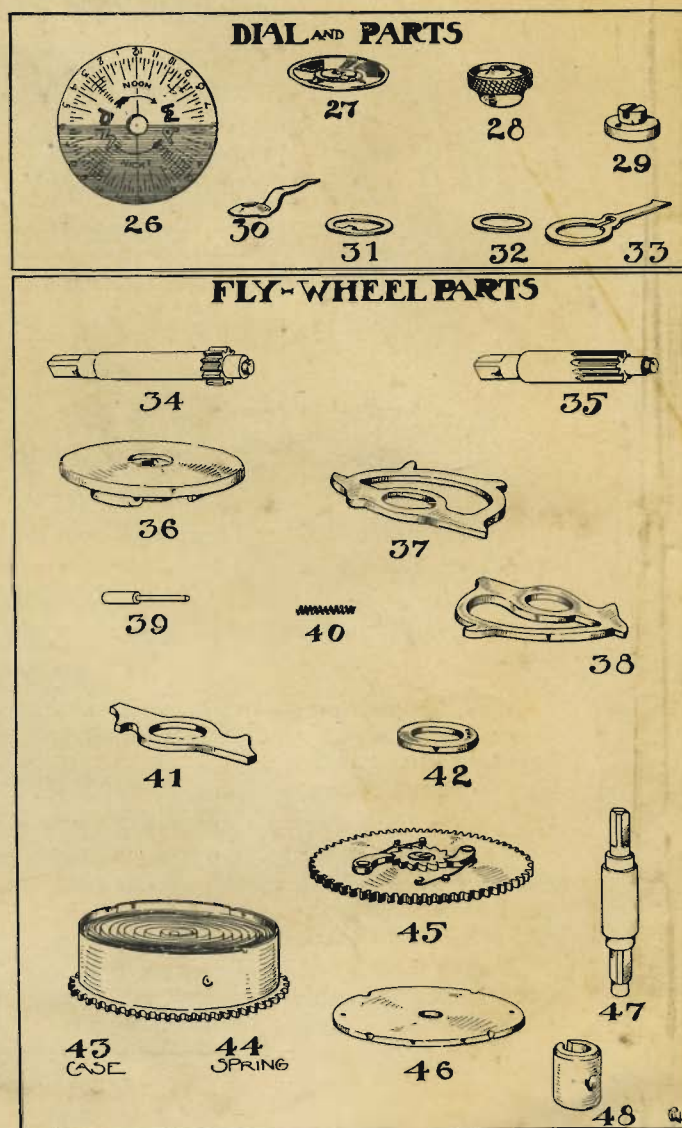
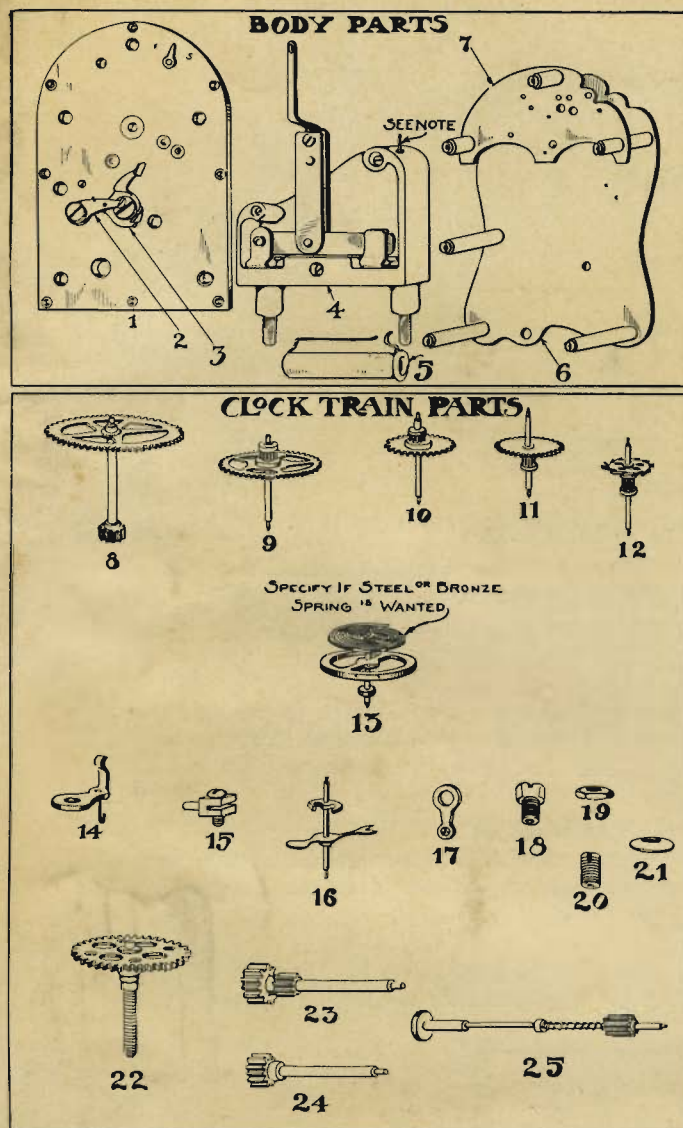
Our Sunday cut-out attachment is a device for preventing the switch from operating on a certain day, and may be used for any day of the week. Suppose it is desired that the switch should not operate on Sunday. The upper dial A is revolved until the letter S, representing Sunday, is above Off mark B on lower dial C. Then both dials are revolved until letter on upper dial representing the present day is in line with the stationary pointer D.

The long hand E turns a sprocket under A and C one tooth each day until cam F comes into position to throw the lever G down, thus preventing hands from operating switch on that day.



# CAMPBELL MANUFACTURING CO., LYNN, MASS.

## Switch and Clock Parts for Campbell Eight-Day Time Switches



- 1 Top Plate
- 2 2nd Lever
- 3 1st Lever
- 4 107 C Porcelain, Complete, with Blade, Jaws, Leads and Lever
- 5 Heating Coil
- 6 Bottom Plate
- 7 Middle Plate
- 8 Intermediate Train Gear
- 9 1st Train Gear
- 10 2nd Train Gear
- 11 3rd Train Gear
- 12 Escape Wheel, Complete
- 13 Balance Wheel Assembly
- 14 F. & S. Adjusting Arm
- 15 Hair Spring Clip Block
- 16 Pallet and Fork
- 17 Pallet Placer Arm
- 18 Balance Shaft Set Screw
- 19 Balance Screw Lock Nut
- 20 Balance Screw
- 21 Balance Screw Washer
- 22 Center Gear
- 23 2nd Pinion Shaft Assembly
- 24 3rd Pinion Shaft Assembly

- 25 Starter, Complete
- 26 Dial
- 27 Dial Friction Washer
- 28 Thumb Nut
- 29 Trip Hand Bushing
- 30 Time Pointer Hand
- 31 Lock Washer with Lip for Tripping Hand
- 32 Spacer Washer for Tripping Hands
- 33 Tripping Hand
- 34 High Power Shaft
- 35 Flywheel Shaft
- 36 Flywheel
- 37 Flywheel Arm, Type "K"
- 38 Flywheel Arm, Type "J"
- 39 Plunger Pin
- 40 Plunger Spring
- 41 Flywheel Arm, Type "C"
- 42 Retaining Washer for Flywheel
- 43 Spring Barrel Case
- 44 Spring
- 45 Cover Gear Assembly
- 46 Cover
- 47 Spring Barrel Shaft
- 48 Spring Barrel Shaft Collar